

**Notice of Allowability**

Application No.

09/513,328

Applicant(s)

CURTIS, BRUCE W.

Examiner

Art Unit

Prieto Beatriz

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to 11/09/04.
2.  The allowed claim(s) is/are 1-7 and 24-26.
3.  The drawings filed on 25 February 2000 are accepted by the Examiner.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All
  - b)  Some\*
  - c)  None of the:
  1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached  
1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of  
Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 01 & 08/04
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application (PTO-152)
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other (Authorization).

***Examiner's Amendment/Comments***

1. An Examiner's Amendment to the record appears below. Should the changes or additions be unacceptable to Applicant, an amendment may be filed as provided by 37 C.F.R. § 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the Issue Fee.
  
2. Authorization for this examiner's amendment was given via email (see attached) by Alan Hodes (Reg. No. 38,185) on February 15, 2005 to cancel claim 6(18-23) withdrawn from consideration.
  
3. PLEASE AMEND CLAIMS as noted below.
  
4. PLEASE AMEND SPECIFICATIONS on page 1, line 1, below title:

**Cross Reference to Related Applications**

This invention is related to U.S. Patent Application No. 09/513,320 filed on February 25, 2000, naming Bruce W. Curtis as inventor, and entitled "USER LEVEL WEB SERVER IN-KERNEL NETWORK I/O ACCELERATOR". That application is incorporated herein by reference in its entirety and for all purposes.

***Reason for Allowance***

5. The following is the Examiner's statement of Reason for Allowance. This statement is not intended to necessarily state all the reasons for allowance or all the details why claims are allowed, nor it specifically or impliedly state that all the reasons for allowance are set forth. The primary, or important reason for allowance of the claims is the inclusion of the limitation(s) in all the claims which is not found in the prior art references.

a) Claim terminology: applicant being entitled to be his/her own lexicographer may rebut the presumption that claim terms are not to be given their ordinary and customary meaning by clearly setting forth a definition of the term that is different from its ordinary and customary meaning. See *In re Paulsen*, 30 F.3d 1475, 1480, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994). However, where an explicit definition is provided by the applicant for a term, that definition will control interpretation of the term as it is used in the claim. *Toro Co. v. White Consolidated Industries Inc.*, 199 F.3d 1295, 1301, 53 USPQ2d 1065, 1069 (Fed. Cir. 1999). According to applicant's specification, "HTTP cache" is an in-kernel cache (p. 13, lines

5-8), an “HTTP daemon”, is program for handling HTTP request (p. 2, lines 8-9), and a “web server” is an HTTP daemon (p. 14, line 19).

b) The prior art of record teaches the features of the invention substantially as claimed, including an advisory state that in a first state indicating that it is necessary to obtain permission from a lock manager to determine whether the response data can be transmitted and when in a second state indicating that the response data can be transmitted without obtaining permission from the lock manager; however, fails to teach or suggest individually or in combination, obtaining (or not) permission from a HTTP daemon. Specifically, the Blumenau teaches obtaining an private/shared flag indication stored in a cache (Figs. 7-9), said indication indicates that all resources are private and no permission is need from a lock manager before accessing any of the resources (col 15/lines 11-15), the flag is obtained, i.e. inspected (step 110) in response to a request (col 19/lines 4-31), determining whether response data can be access or permission is required prior to accessing stored content (see Fig. 11). Specifically, *if the private/shared flag is set, the access is permitted* (steps 110-111), *if not set, locking information (i.e. public or private indication) is accessed* (step 112) to determine if access is permitted, if public and already lock, *the host controller needs to request a read or write access*, if public and not locked, *the host controlled is granted access*. Because, “HTTP daemon”, is program for handling HTTP request (p. 2, lines 8-9), and a “web server” is an HTTP daemon (p. 14, line 19), the applied reference fails to teach respective claim limitation, thereby, the claimed invention as a whole

6. Double patent analysis has been performed with respect to *issued patents* having common relationship of inventorship and/or ownership with respect to the above-allowed claims, *none* are found to warrant a double patenting rejection.

7. Any comments Applicants considers necessary must be submitted no later than the payment of the Issue Fee and to avoid processing delays, should preferable accompany the Issue Fees. Such submission should be clearly labeled “Comments on Statement of Reasons for Allowance”. In event of any post-allowance papers (e.g. IDS, 312 amendment, petition, etc.), Applicant is exhorted to mail papers to the Production Control branch in Publications or faxed to post-allowance papers correspondence branch at (703) 308-5864 to expedite issuing process or call PUB’s Customer Service if any questions at (703) 305-8497.

***Response to arguments/comments***

8. Regarding claim 1 rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter, presented argument have been reviewed and found persuasive. Rejection is withdrawn.

9. Regarding rejection of claims 1 and 25-26 under obviousness double patenting against claims of US patent 6,668,279, it is argued that office failed to provide an rationale to set forth a *prima facie* case of obviousness type double patenting rejection.

In response to the above-mentioned argument, claim analysis (shown below) was performed, which determined that claims in question are not conflicting, i.e. the same invention and/or an obvious variation. Rejection under obviousness double patenting is withdrawn.

In a web server, a method of processing a HTTP request including HTTP request data, comprising:  receiving a HTTP request data from a client;	A method of managing an in-kernel HTTP cache in a web server, comprising:  receiving a HTTP request;
a “data transport” module for sending/receiving the HTTP request data and a “preempt” indicator to/from the HTTP daemon;	
	when determined that the HTTP response is in the cache, obtaining an advisory state associated with the HTTP request from the in-kernel HTTP cache,
the indicator in a first state indicates that processing is to be preempted to the HTTP daemon over the module (i.e. <i>Preemption</i> is the suspension of a running processes so that other processes can be executed, thereby, the module defers processing), and	advisory state in a first state indicates that it is necessary to obtain permission from a HTTP daemon for determining the transmission of the response (from the cache); and
the indicator in a second state indicates that processing is not to be preempt to the HTTP daemon.	advisory state in a second state indicated that it is not necessary to obtain permission from the HTTP for transmission of the response (not in cache).

10. Regarding claim 1 rejected under 35 U.S.C. 103 as being unpatentable over Gopal in view of Blumenau, it is argued that Gopal does not teach an “HTTP cache”.

In response to the above-mentioned argument, Gopal teaches determining whether response data associated with a received HTTP request is in the in-kernel HTTP cache.

Gopal teaches wherein, a network server extension 150, i.e. kernel component and a network server extension 160, i.e. a user component, together make a **web server**, both implement HTTP protocol (col 5/lines 29-39); a remote client sends an *HTTP GET request* to the *HTTP server* implemented by Network Server Extension 150, 160. When a request is received that is not in the response *cache* 136, GetUncachedResponse 152 is called by AFPA handlers 132 since GetCachedResponse failed in finding the response in the response cache 136. Thus, a cache miss has occurred. (col 6/lines 16-29). Network server extension 150 (i.e. the server extension) gets requests from a remote web browser via these handlers. That is, AFPA handlers 132 invoke the GetCachedResponse provided by network server extension 150. GetCachedResponse *checks the contents of response cache 136 in AFPA run-time support 134 (see Fig. 1) to determine if particular responses are cached*. For cached responses, Network Server Extension 150 returns the cached response and returns from the call to GetCachedResponse (col 5/lines 40-60). Gopal teaches determining whether response data associated with a received HTTP request is in the in-kernel “HTTP” cache and teaches claimed in-kernel “HTTP” cache in a web server. Instant application defines an “HTTP cache” as an in-kernel cache (p. 13, lines 5-8).

Prior art teaches an in-kernel cache meeting claimed functionalities (MPEP §2111 and/or 2106).

Arguments that that a “literary” recitation of the claim term “HTTP” cache must be maintained and/or met by the prior art, is not persuasive.

11. Regarding claim 1 rejected under 35 U.S.C. 103 as being unpatentable over Gopal in view of Blumenau, it is argued that Gopal does not teach obtaining state advisory associated with the HTTP request from the in-kernel cache, which when in first state indicates that it is necessary to obtain permission from a HTTP daemon to determine whether the response data can be transmitted.

In response to the above-mentioned argument, according to applicant’s specification, an “*HTTP cache*”, i.e. an *in-kernel cache* (p. 13, lines 5-8), an “*HTTP daemon*”, i.e. a *program for handling HTTP request* (p. 2, lines 8-9), and further defining a “*web server*” is an *HTTP daemon* (p. 14, line 19). An advisory state associated with the HTTP request can be obtained from the cache in order to determine whether it is necessary to consult with the web server prior to transmitting the response data to the client (p. 13, lines 12-15), in a *first state* an advisory state associated with an HTTP request indicates that it is necessary to obtain permission from the HTTP daemon in order to transmit the response data (e.g. *response data stored in the HTTP cache*) and when a *second state* indicated that the response data can be transmitted without obtaining permission from the HTTP daemon, for instance when the advisory state is false an advisory upcall need not to be performed to obtain permission from the HTTP daemon in order to transmit response, e.g. *the response data has been previously stored in cache* (p. 15, line 9-18).

Claim limitation recites, obtaining an advisory state associated with the HTTP request from the in-kernel HTTP cache, the advisory state when in a first state indicating that it is necessary to obtain permission from a HTTP daemon to determine whether the response data can be transmitted and when in a second state indicating that the response data can be transmitted without obtaining permission from the HTTP daemon;

Blumenau teaches obtaining an private/shared flag indication stored in a cache (Figs. 7-9), said indication indicates that all resources are private and no permission is need from a lock manager before accessing any of the resources (col 15/lines 11-15), the flag is obtained, i.e. inspected (step 110) in response to a request (col 19/lines 4-31), determining whether response data can be access or permission is required prior to accessing stored content (see Fig. 11). Specifically, *if the private/shared flag is set, the access is permitted* (steps 110-111), *if not set, locking information (i.e. public or private indication) is accessed* (step 112) to determine if access is permitted, if public and already lock, *the host controller needs to request a read or write access*, if public and not locked, *the host controlled is granted access*.

Blumenau teaches an advisory state that in a first state indicating that it is necessary to obtain permission from a lock manager to determine whether the response data can be transmitted and when in a second state indicating that the response data can be transmitted without obtaining permission from the lock manager (see item 5 above).

12. Regarding claim 1 rejected under 35 U.S.C. 103 as being unpatentable over Gopal in view of Blumenau, it is argued that the office action has not set forth a proper motivation to combine the Gopal and Blumenau references, because the motivation does not point to anything in the references or knowledge held by one of ordinary skill in the art suggestion or motivating the alleged improvement.

In response to the above action, motivation to combine the reference as been set forth in the office action, and was obtained from the prior art itself. In this case, see the Blumenau reference, which suggest the desirability to restrict access to a set of volumes that can be seen by any host various reasons, e.g. speed, security, fault tolerant and load balancing purposes. Further suggesting restricting access by authenticating access request and determining if the host is authorized to access the requested file, applicable to network servers, indicating that these authentication/authorization procedures for discriminating among all access request by the hosts to the logical storage subsystem (cache) would unduly burden the host and the storage subsystem. Blumenau suggests desirability to manage access to files stored in the logical volumes to which the host is permitted access in a manner transparent to any high-level file system procedures, restricting and managing access to storage volumes seen by the host and seen by the operating system when the operating system determines what volumes are accessible to

the host (col 1/lines 9-col 2/line 41). Further suggesting the use of cached storage subsystems in connection with stream servers for continuous media data access, each storage cache memory subsystem access via any number of communication protocols (col 10/lines 15-30, and col 9/lines 25-41).

13. Regarding rejection of claims 1-7 and 24-26 under 103 over Hayes in view of Hunt in further view of Blumenau, it is hereby withdrawn for reasons noted on item 5 above.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to B. Prieto whose telephone number is (571) 272-3902. The Examiner can normally be reached on Monday-Friday from 6:30 to 4:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Jack B. Harvey can be reached on (571) 272-3896. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Information regarding the status of an application may be obtained fro the Patent Application Information Retrieval (PAIR) system, status information for published application may be obtained from either Private or Public PAIR, for unpublished application Private PAIR only (see <http://pair-direct.uspto.gov> or the Electronic Business Center at 866-217-9197 (toll-free)).

Any response to this action should be mailed to:

**Box Issue Fee**  
Commissioner of Patents and Trademarks  
P.O. Box 1450  
Alexandria, VA 22313-1450

or faxed to:

(703) 746-4000, (Issue Fee and any Publication fee/payments)

Or:

(703) 305-8283 (for checking on receipt of payment w/Publication)

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Patent Examiner  
February 17, 2005

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